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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,251	04/04/2001	Ylian Saint-Hilaire	INTL-0554-US (P11113)	2672

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EXAMINER	
PERSINO, RAYMOND B	

ART UNIT	PAPER NUMBER
2682	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/826,251	SAINT-HILAIRE ET AL.	
	Examiner	Art Unit	
	Raymond B. Persino	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 4-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over CANNON et al (US 6,650,871 B1) in view of DENT et al (US 5,896,375 A).

Regarding claim 1, CANNON et al discloses a first telephone (handset) which is a member of a first radio frequency network (piconet) and a second telephone (base) which is a member of a second radio frequency network (piconet) sending packetized non-voice data between the first and second networks (column 6 lines 1-53). However, CANNON et al does not disclose that the packetized non-voice data is sent in the course of a telephone call and that the packetized non-voice data is appended to voice data. DENT et al discloses a cordless telephone handset and base that communicate voice and non-voice data simultaneously (column 3 line 42 to column 4 line 31 and column 15 line 61 to column 16 line 17). Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify CANNON et al such that both data and voice can be communicated simultaneously. This increases the

usefulness of CANNON et al's teaching by allowing the handset to not be limited to data or voice communications exclusively.

Regarding claim 4, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al disclose communicating information about said first radio frequency network over a telephone network (column 6 lines 1-53). Also, DENT et al discloses communicating information about said first radio frequency network over a telephone network (column 3 line 42 to column 4 line 31 and column 15 line 61 to column 16 line 17).

Regarding claim 11, CANNON et al discloses a first telephone (handset) which is a member of a first radio frequency network (priconet) and a second telephone (base) which is a member of a second radio frequency network (piconet) sending packetized non-voice data between the first and second networks (column 6 lines 1-53). However, CANNON et al does not disclose that the packetized non-voice data is sent in the course of a telephone call and that the packetized non-voice data is appended to voice data. DENT et al discloses a cordless telephone handset and base that communicate voice and non-voice data simultaneously (column 3 line 42 to column 4 line 31 and column 15 line 61 to column 16 line 17). Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify CANNON et al such that both data and voice can be communicated simultaneously. This increases the usefulness of CANNON et al's teaching by allowing the handset to not be limited to data or voice communications exclusively.

Regarding claim 14, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al disclose communicating information about said first radio frequency network over a telephone network (column 6 lines 1-53). Also, DENT et al discloses communicating information about said first radio frequency network over a telephone network (column 3 line 42 to column 4 line 31 and column 15 line 61 to column 16 line 17).

3. Claims 2, 5-9, 12, 13, 15-19 and 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over CANNON et al (US 6,650,871 B1) in view of DENT et al (US 5,896,375 A) and further in view of TONY et al (US 2001/0002912 A1).

Regarding claim 2, see the rejection of the parent claim concerning the subject matter this claim is dependent from. However, neither CANNON et al nor DENT et al disclose automatically enumerating a plurality of devices in a Bluetooth radio frequency network. TONY et al discloses automatically enumerating a plurality of devices in a Bluetooth radio frequency network (paragraphs 75-88). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify per TONY et al. Motivation to modify per TONY et al is that TONY et al teaches a way to overcome the shortcomings in the Bluetooth specification by disclosing how to address and route packets from one piconet to another (see TONY et al, paragraph 20).

Regarding claim 5, see the rejection of the parent claim concerning the subject matter this claim is dependent from. However, neither CANNON et al nor DENT et al disclose enumerating a plurality of devices in a second radio frequency network. TONY et al further discloses enumerating a plurality of devices in a second radio frequency

network (paragraphs 75-88 and 97). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify per TONY et al. Motivation to modify per TONY et al is that TONY et al teaches a way to overcome the shortcomings in the Bluetooth specification by disclosing how to address and route packets from one piconet to another (see TONY et al, paragraph 20).

Regarding claim 6, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses combining said first and second radio frequency networks into a combined radio frequency network (paragraph 97). Also, CANNON et al discloses combining said first and second radio frequency networks into a combined radio frequency network (column 6 lines 1-53).

Regarding claim 7, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses enabling any device in said first radio frequency network to communicate through said telephone call with any device in said second radio frequency network (paragraphs 75-88 and 97).

Regarding claim 8, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses transmitting data (routing information) between said first and second radio frequency networks through said telephone call at the same time that a voice communication (Bluetooth supports voice communication) is ongoing between a device in said first radio frequency network and a device in said second radio frequency network (paragraphs 89-102).

Regarding claim 9, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al discloses a cordless telephone as

a Bluetooth device (column 6 lines 1-53). Also, TONY et al further discloses that virtually any digital device can be a Bluetooth device including a mobile telephone (paragraphs 2 and 9).

Regarding claim 12, see the rejection of the parent claim concerning the subject matter this claim is dependent from. However, neither CANNON et al nor DENT et al disclose automatically enumerating a plurality of devices in a Bluetooth radio frequency network. TONY et al further discloses automatically enumerating a plurality of devices in a Bluetooth radio frequency network (paragraphs 75-88). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify per TONY et al. Motivation to modify per TONY et al is that TONY et al teaches a way to overcome the shortcomings in the Bluetooth specification by disclosing how to address and route packets from one piconet to another (see TONY et al, paragraph 20).

Regarding claim 13, see the rejection of the parent claim concerning the subject matter this claim is dependent from. However, neither CANNON et al nor DENT et al disclose developing enumeration data for a plurality of devices in a radio frequency network and communicating said enumeration data over a scatternet connection between piconets. TONY et al further discloses developing enumeration data for a plurality of devices in a radio frequency network and communicating said enumeration data over a scatternet connection between piconets (paragraphs 75-88 and 97). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify per TONY et al. Motivation to modify per TONY et al

is that TONY et al teaches a way to overcome the shortcomings in the Bluetooth specification by disclosing how to address and route packets from one piconet to another (see TONY et al, paragraph 20).

Regarding claim 15, see the rejection of the parent claim concerning the subject matter this claim is dependent from. However, neither CANNON et al nor DENT et al disclose enumerating a plurality of devices in a second radio frequency network. TONY et al further discloses enumerating a plurality of devices in a second radio frequency network (paragraphs 75-88 and 97). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify per TONY et al. Motivation to modify per TONY et al is that TONY et al teaches a way to overcome the shortcomings in the Bluetooth specification by disclosing how to address and route packets from one piconet to another (see TONY et al, paragraph 20).

Regarding claim 16, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses combining said first and second radio frequency networks into a combined radio frequency network (paragraph 97). Also, CANNON et al discloses combining said first and second radio frequency networks into a combined radio frequency network (column 6 lines 1-53).

Regarding claim 17, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses enabling any device in said first radio frequency network to communicate over said call with any device in said second radio frequency network (paragraphs 75-88 and 97).

Regarding claim 18, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses transmitting data (routing information) between said first and second radio frequency networks at the same time that a voice communication (Bluetooth supports voice communication) is ongoing between a device in said first radio frequency network and a device in said second radio frequency network (paragraphs 89-102).

Regarding claim 19, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al discloses a cordless telephone as a Bluetooth device (column 6 lines 1-53). Also, TONY et al further discloses that virtually any digital device can be a Bluetooth device including a mobile telephone (paragraphs 2 and 9).

Regarding claim 21, CANNON et al discloses cordless RF piconet range extension to enable a piconet to communicate with another piconet outside its coverage area that includes a radio frequency receiver and a radio frequency transmitter (column 6 lines 1-53). CANNON et al discloses that the base station and the handset form a scatternet (column 4 lines 41-50). However, CANNON et al is silent as to enumerating a plurality of devices in a first radio frequency network and appending non-voice data received from a second device over the first radio frequency network to voice data to be transferred by said device with said non-voice data to a second radio frequency network. DENT et al discloses a cordless telephone handset and base that communicate voice and non-voice data simultaneously (column 3 line 42 to column 4 line 31 and column 15 line 61 to column 16 line 17). TONY et al discloses enumerating

a plurality of devices in a first radio frequency network (paragraphs 75-88). Further TONY et al discloses that in a scatternet connection between two piconets, the connecting nodes are slaves in both piconets (see paragraph 97) and further it is disclosed that enumeration information is sent from a master to slaves (see paragraph 88). Thus, per TONY et al, enumeration information from both piconets would be sent over CANNON et al's connection between the piconets. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify CANNON et al per DENT et al and TONY et al. Motivation of modify per DENT et al is that the modification results in increased usefulness of CANNON et al's teaching by allowing the handset to not be limited to data or voice communications exclusively. Motivation to modify CANNON et al per TONY et al is that TONY et al teaches a way to overcome the shortcomings in the Bluetooth specification by disclosing how to address and route packets from one piconet to another (see TONY et al, paragraph 20).

Regarding claim 22, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al further discloses that radio frequency transmitter includes a telephone radio frequency transmitter (column 6 lines 1-53). Also, TONY et al further discloses that virtually any digital device can be a Bluetooth device including a mobile telephone (paragraphs 2 and 9).

Regarding claim 23, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al further discloses that the transmitter includes a Bluetooth transmitter (column 6 lines 1-53).

Regarding claim 24, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al further discloses a transmitter to transmit information over at least two different radio frequency networks (Bluetooth transmitter may be part of more than one piconet per TONY et al) as well as a telephone network (column 6 lines 1-53).

Regarding claim 25, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses that virtually any digital device can be a Bluetooth device including a mobile telephone (paragraphs 2 and 9). Thus a device per TONY et al would have a transmitter to transmit over a cellular telephone network and a Bluetooth network.

Regarding claim 26, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al discloses receiving enumeration data over a radio frequency connection so as to combine the first radio frequency network with a second radio frequency network over a radio frequency connection (paragraphs 75-89 and 97).

Regarding claim 27, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al further discloses a receiver and a transmitter to implement a telephone link while simultaneously exchanging data received over a separate radio frequency link (column 6 lines 1-53).

Regarding claim 28, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al further discloses that the transmitter packetizes voice data (column 4 line 66 to column 5 line 30).

Regarding claim 29, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al further discloses that the transmitter packetizes data (column 4 line 66 to column 5 line 30). TONY et al further discloses transmitting data (routing information) between said first and second radio frequency networks at the same time that a voice communication (Bluetooth supports voice communication) is ongoing between a device in said first radio frequency network and a device in said second radio frequency network (paragraphs 89-102). Moreover, DENT et al discloses a cordless telephone handset and base that communicate voice and non-voice data simultaneously (column 3 line 42 to column 4 line 31 and column 15 line 61 to column 16 line 17). Thus the combination teaches that the transmitter packetizes enumeration data and transmits it with packetized voice data.

Regarding claim 30, see the rejection of the parent claim concerning the subject matter this claim is dependent from. TONY et al further discloses that virtually any digital device can be a Bluetooth device including a mobile telephone (paragraphs 2 and 9). Thus a device per TONY et al would have a transmitter to transmit over a cellular telephone network and a Bluetooth network.

4. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over CANNON et al (US 6,650,871 B1) in view of DENT et al (US 5,896,375 A) and TONY et al (US 2001/0002912 A1) and further in view of an examiner's official notice.

Regarding claim 10, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al disclose that the two devices that are acting as proxies for the respective piconets are telephonic devices (column 6 lines

1-53). However, CANNON et al does not explicitly disclose that the RF telephonic devices are cellular devices. Nevertheless, the examiner takes official notice that it was know at the time of the invention for RF telephonic devices to be cellular devices. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the RF telephonic devices to be cellular devices. A cellular communications arrangement allows for increased mobility.

Regarding claim 20, see the rejection of the parent claim concerning the subject matter this claim is dependent from. CANNON et al disclose that the two device that are acting as proxies for the respective piconets are telephonic devices (column 6 lines 1-53). However, CANNON et al does not explicitly disclose that the RF telephonic devices are cellular devices. Nevertheless, the examiner takes official notice that it was know at the time of the invention for RF telephonic devices to be cellular devices. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the RF telephonic devices to be cellular devices. A cellular communications arrangement allows for increased mobility.

Response to Arguments

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond B. Persino whose telephone number is (571) 272-7856. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond B. Persino RP
Examiner
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RP

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4/4/05